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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,941	06/28/2001	Michael John Davis	60LT01103	1253
23413	7590	04/06/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			SHORT, PATRICIA A	
			ART UNIT	PAPER NUMBER
			1712	
DATE MAILED: 04/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/681,941	<b>Applicant(s)</b> DAVIS ET AL.	
	<b>Examiner</b> Patricia A. Short	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 29-32, 36 and 37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-21, 23-28, 33-35, 38 and 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Claims 29-32, 36 and 37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the response filed February 13, 2004.

Applicant's election with traverse of Group I and species epoxy resin, polyvinyl acetal resin and arylene polyamine is acknowledged. The traversal is on the ground(s) that there is no undue burden on the examiner. This is not found persuasive because separate classification of the inventions is evidence of an undue burden and the multiple species involve a large number of possible combinations and searches.

The requirement is still deemed proper and is therefore made FINAL.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 14-17, 20, 21, 23-28, 33-35, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough (6518362). The reference teaches a curable composition comprising polyarylene ether, uncured epoxy resin, a compatibilizer that can be styrene/acrylonitrile copolymer or styrene/butadiene block copolymer and a curing agent that can be an aromatic polyamine. See col. 3, line 20 through col. 5, line 25 and col. 9, lines 39-58. The compositions are prepared by melt blending the components at low temperature so as to not cure the epoxy resin. See col. 10, line 44 through col. 11, line 10. As suggested by the reference, it would have been obvious to combine a polyarylene ether, epoxy resin, styrene/acrylonitrile or styrene/butadiene block copolymer compatibilizer and aromatic polyamine curing agent by melt blending at low temperature in order to obtain a curable molding composition. Variation in order of addition of components and blending temperature would have been obvious modifications to

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one of ordinary skill in the art in order to obtain the blend with uncured epoxy resin when using the amine curing agents.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough (6,518,362) in view of Lee (5,397,822). Clough is discussed above. Lee teaches that resorcinol diphosphate is a preferred art recognized phosphate plasticizer for use with polyphenylene ether. See col. 8, lines 17-50. In view of Lee, it would have been obvious to include resorcinol diphosphate in the polyphenylene ether composition of Clough for its art recognized purpose as a plasticizer.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16, 18-21, 23-28, 33-35, 38 and 39 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 09/644,012 in view of Clough (6,518,362). The claims of S.N. 09/644,012 are drawn to compositions comprising poly (arylene ether), thermosetting resins that are the same as in the instant claims, toughening agent that are the same as the compatibilizer in the instant claims and a curing agent in amounts that overlap with the amounts recited in the claims of this application. Clough teaches curable polyphenylene ether compositions that contain epoxy resin and curing agent. Curing agents include aromatic

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polyamines. See col. 9, lines 32-58. The compositions are prepared by melt blending the components at low temperature so as to not cure the epoxy resin. See col. 10, line 44 through col. 11, line 10. In view of Clough, it would have been obvious to use an aromatic polyamine as the curing agent in the claims of S.N. 09/644,012 and prepare the compositions by melt blending at low temperatures. Variation in order of addition of components and blending temperature would have been obvious modifications to one of ordinary skill in the art in order to obtain the blend with uncured epoxy resin when using the amine curing agents.

This is a provisional obviousness-type double patenting rejection.

P. Short

March 29, 2004

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**PATRICIA A. SHORT**  
**PRIMARY EXAMINER**

*Patricia A. Short*